

# *United States Army* *Logistics Transformation Agency*



## **Common Logistics Operating Environment (CLOE)**

**General Officers Steering Committee  
Decision Brief**

**29 Sep 2003**

**Materiel Logistics Division  
Logistics Transformation  
Agency  
(717) 770-7600**



# *Purpose*

## ■ Obtain Approval of:

- **CLOE Implementation Strategy**
- **CLOE MDEP**
- **CLOE Governance Structure**

## ■ To Get There:

- **Execution to Date**
- **Policy**
- **Implementation Going Forward**
- **Systems Integration Lab**
- **Funding Requirements**
- **Governance Structure**
- **Recommendations**



# *Execution to Date*

## ■ Program Management

- Established CLOE Program Army-wide
- Established Synchronization IPT
- Developed CLOE Implementation Strategy

## ■ Technical Work

- Published CBM+ and Predictive Maintenance Operational Concept
- Finalized CLOE V1.0 Operational and Systems Architecture
- Built SBCT Concept of Operations
  - Sustainment Architecture Via Current STAMISs
  - Embedded Platform Enablers
- Preliminary Planning for CLOE Experiment

## ■ Policy

- CLOE Strategy Paper Developed/Approved
- CLOE Campaign Plan
- Army Asst Sec of Acquisition Policy Memo

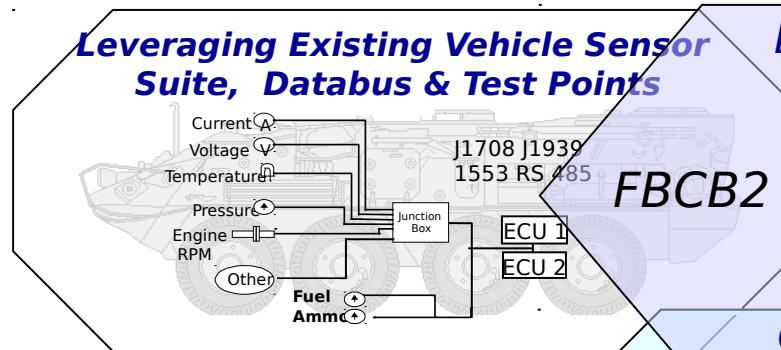


# CLOE Version 1.0 - SBCT Proof Of

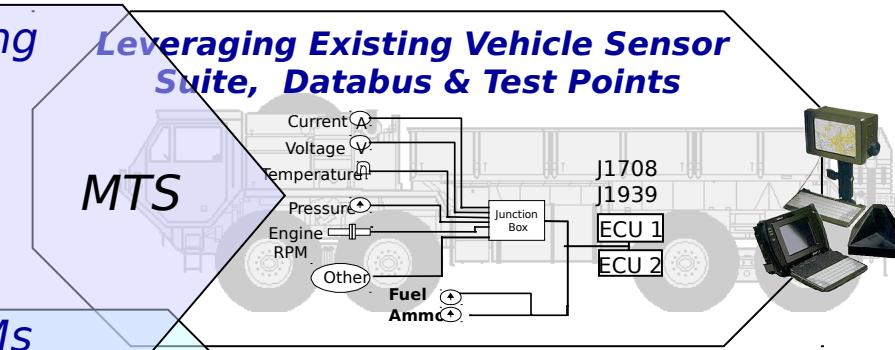
## Enablers Demonstration

### ***Self-Reporting Platforms, Equipment Health Management & Condition-Based Maintenance***

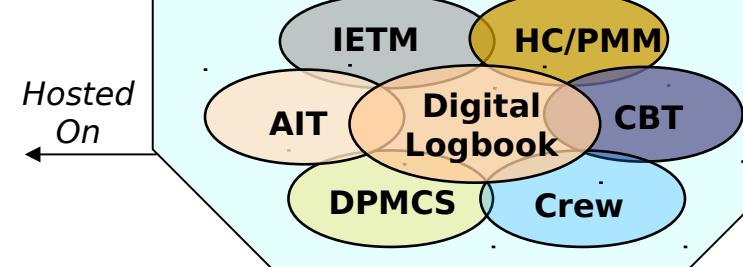
#### **Stryker Force**



#### **Current Force**



#### **Synchronized & Integrated Enablers**





# CLOE Policy Memorandum

- CLOE Capabilities and Standards Policy Memo signed 25 Jul 03 by Assistant Secretary of the Army (ALT) - "**The Army will employ a CLOE to capture, store, retrieve, and utilize logistics data from battlefield operating systems**"
- Policy states:
  - G-4, as the Responsible Official for Sustainment to **lead, coordinate, and implement** the CLOE
  - TRADOC must consider CLOE **common data standards, specifications, and protocols** for sensor-based, self-monitoring, self-reporting platforms and equipment when writing and updating operational capability documents for OF units.
  - Program Executives and Managers use CLOE-designated **common data standards , specifications and protocols** when acquiring critical information technologies
  - Program Executives and Managers **acquire access to platform/equipment technical data** for all ACAT I, II, and III systems
  - Program Managers and Managers and AMC MSCs will **make technical data available** to acquisition and sustainment communities using commercial PDM systems

*LTA has been assigned as the Executive Agent for CLOE*

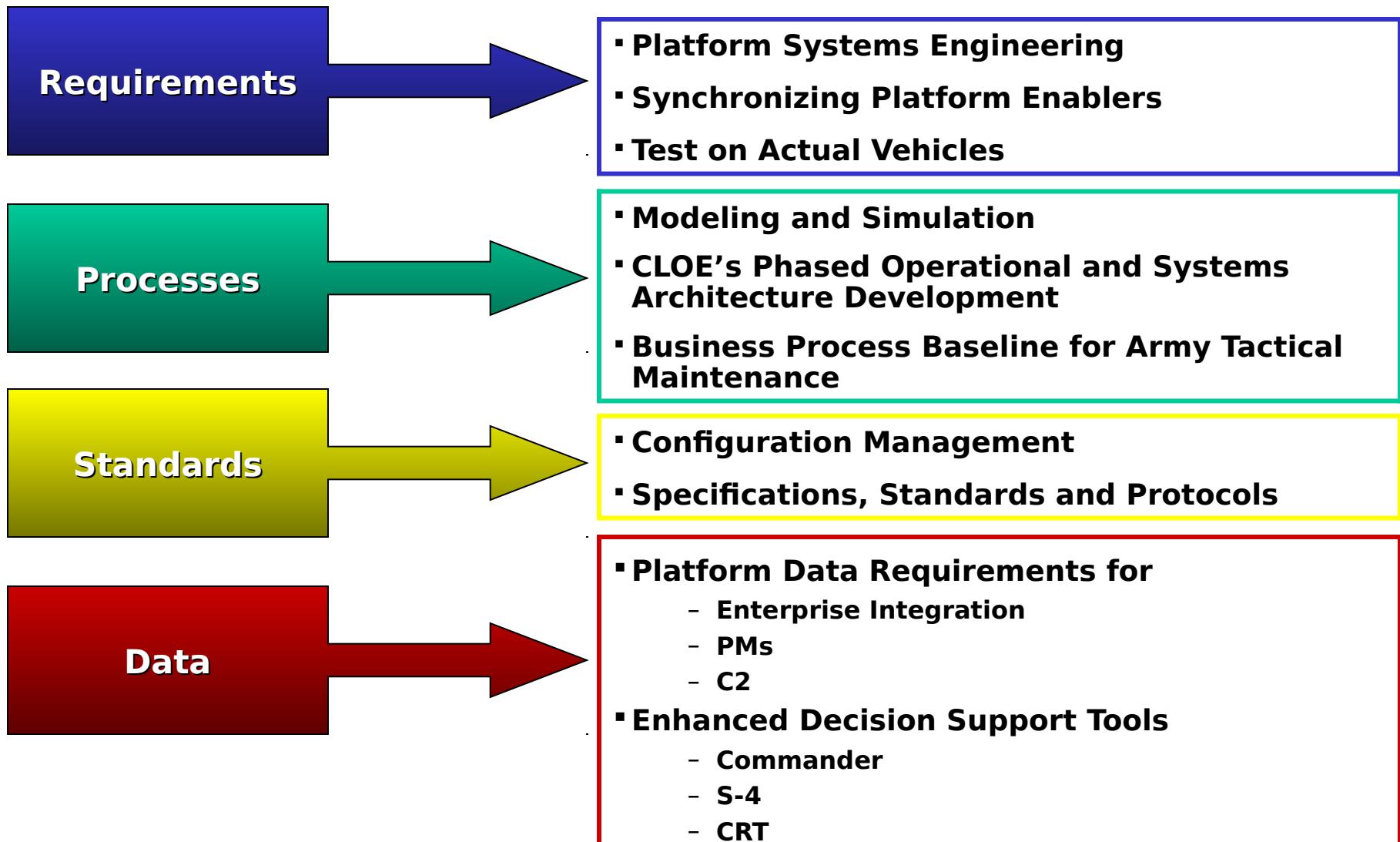


# CLOE Policy Elements

- Directs the Army to Employ a Common Logistics Operating Environment (CLOE)
  - Requirements
    - Define Requirements for Sensor-based, **Self-monitoring, Self-reporting Platforms Requirements**
    - Assure **Commonality & Interoperability** in Support of OF Sustainment
  - Processes
    - Employ an **On-Board Health Management System Process**
    - Build Tactical Platform Level **Logistics Business Processes**
    - Link Platform Health Monitoring Capabilities to **EI Processes**
  - Standards, Specs, Protocols
    - Provide Guidance and **Configuration Management** for PEOs/PMs
  - Data Management
    - Provide **Platform Technical Data** to Acquisition and Sustainment Communities
    - Capture, Store, Retrieve, and Utilize **Logistics Data** From Battlefield Operating Systems



# CLOE Actions To Support Policy Elements

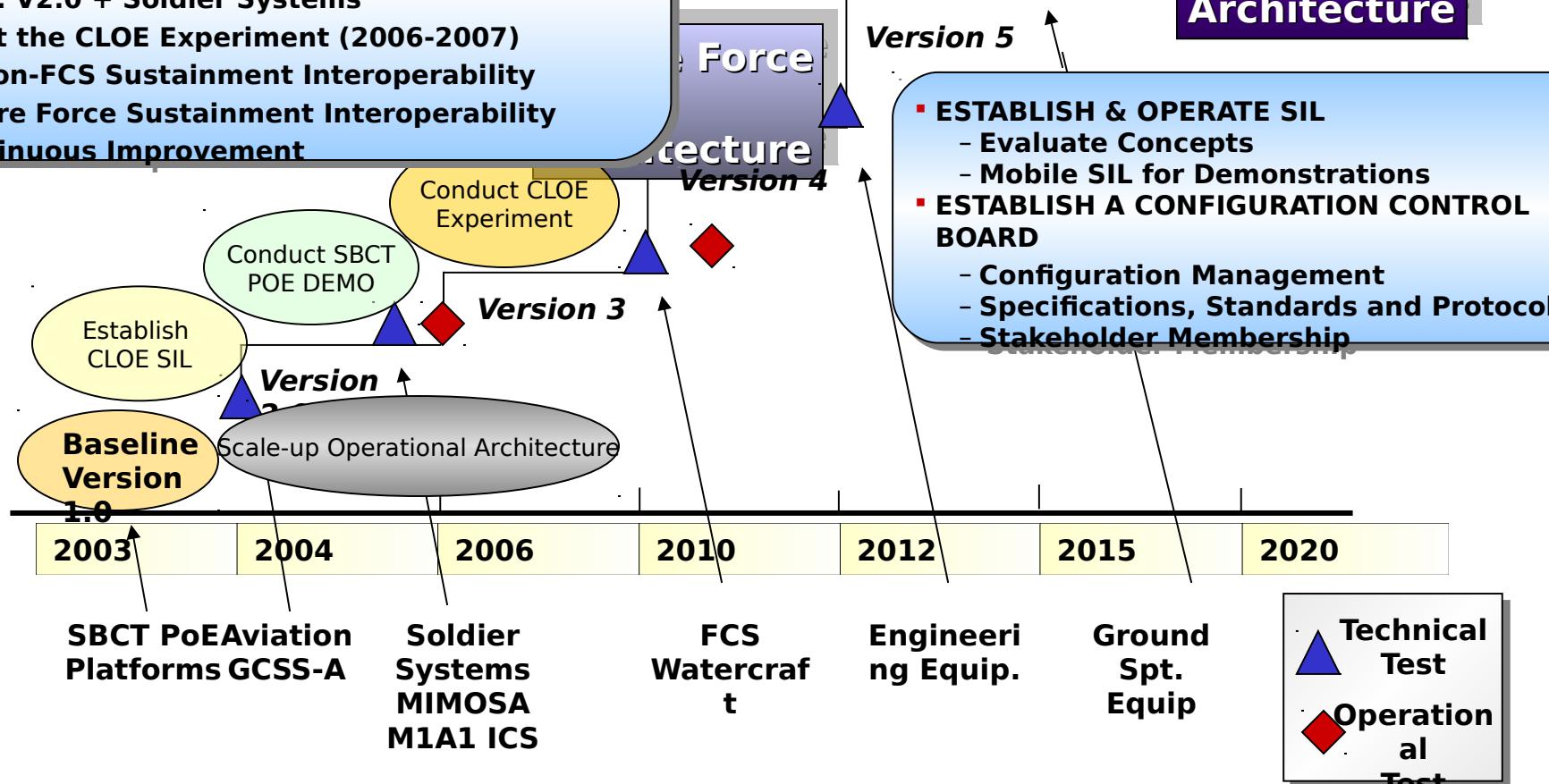




# CLOE Implementation

## Moving Forward to the Future Force

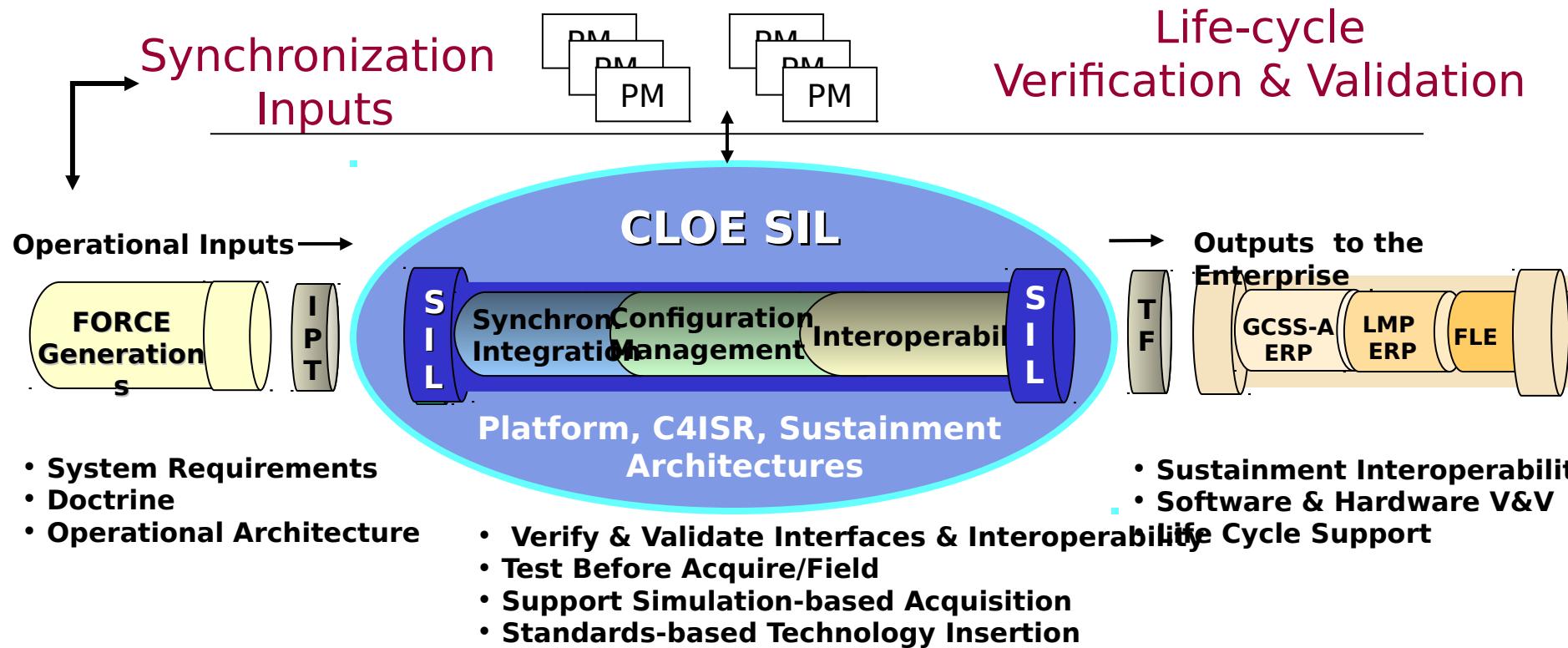
- Conduct The SBCT POE Technical Test
- Scale-up The Operational Architecture (2003-2006)
  - V2.0: Ground + Aviation + GCSS-A
  - V3.0: V2.0 + Soldier Systems
- Conduct the CLOE Experiment (2006-2007)
- FCS / Non-FCS Sustainment Interoperability
  - Future Force Sustainment Interoperability
  - Continuous Improvement





# CLOE Systems Integration Lab

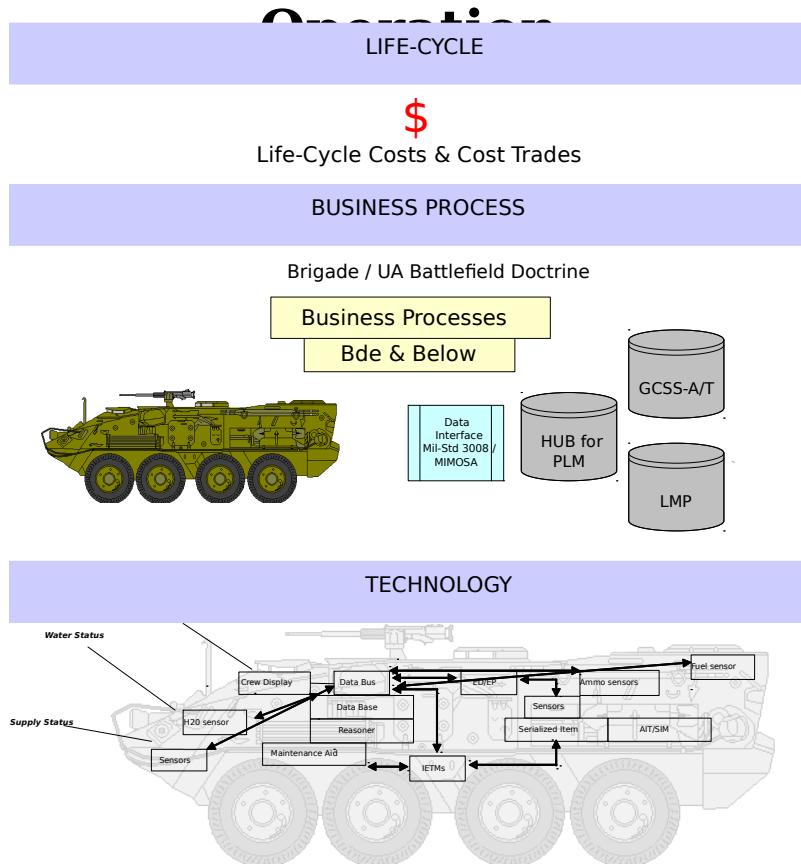
**The CLOE SIL Operates as a Meta-Laboratory, Ensuring Interoperability Across All Equipment Force Generations**





# SIL Support to PM's

## Levels of CLOE SIL



**PM INVOLVEMENT AT ALL STAGES**

### ■ System Life-cycle:

- **Test Proposed Hardware & Software On Multiple Levels:**
  - Impact Of Tech Trades On Life-cycle Costs
  - ACQ / RECAP / SLEP Decision Support
- **Provide Input to POM**

### ■ Business Process:

- **Ensure Business Process & Doctrine Compatibility for Tactical Maintenance On the Future Force Battlefield**
- **Ensure Platform Systems Interoperate Across PEO Domains**
  - e.g. C3, EIS, Aviation, Ground

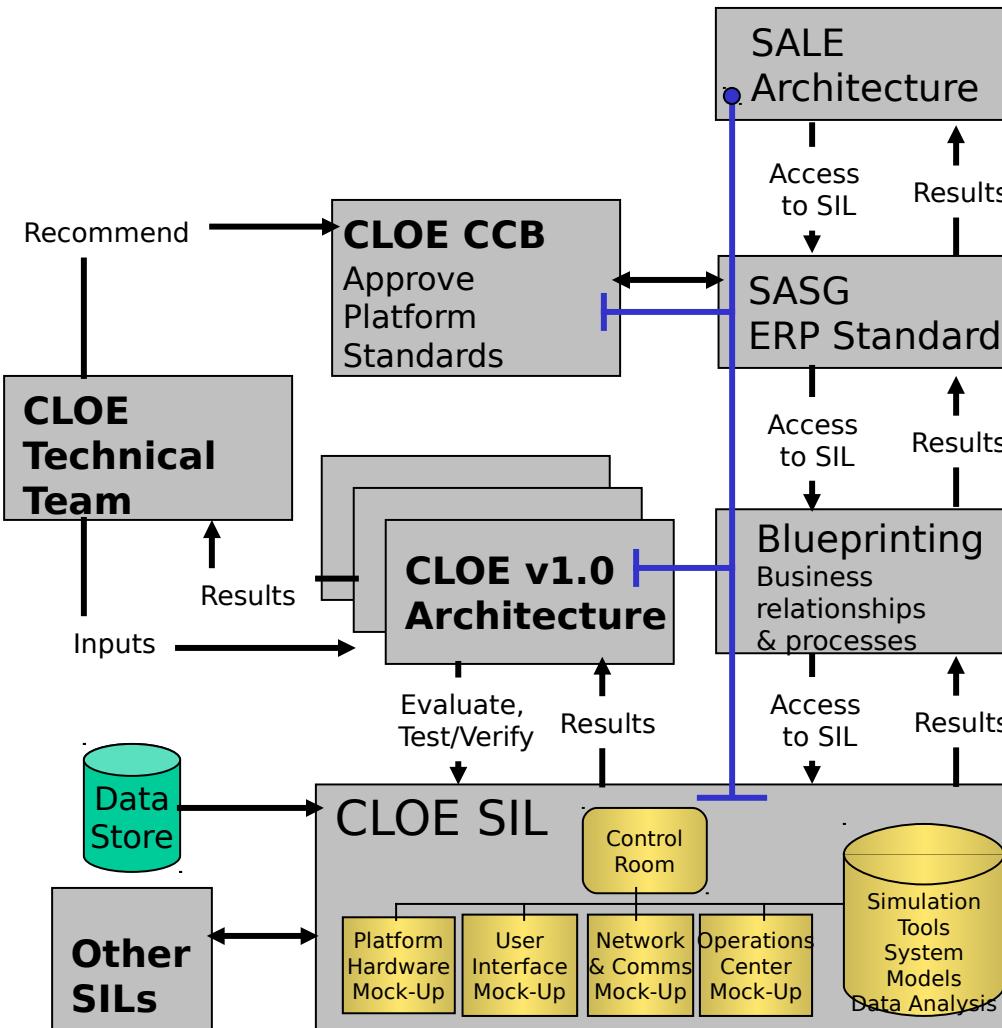
### ■ Technology:

- **Identify Platform Data To The Logistics Enterprise**
- **Recommend Standards, Specs, and Technology Solutions To PMs**

Matrix Support to the PMs



# CLOE and Logistics Enterprise Integration



- Establish Management & Technical Working Relationship Between LTA and AMC DALEIO

- OBJECTIVE: Determine Business Relationships and Processes Required for Blueprinting Based on Newly Available Platform Data



# *Funding Requirements*

## *FY 04/05*

- **3.8M FY 04 UFR**
- **4.0M FY 05 UFR**
  - **Synchronize and Coordinate CLOE Requirements**
  - **SBCT POE Demonstration**
  - **CLOE Architecture Version 2.0**
  - **CLOE Exercise**
    - **Exercise CONOPs**
    - **Exercise Plan**
    - **Exercise Software Development**
  - **Stand-up CLOE SIL**
    - **SIL Operation**
    - **Business Process Redesign**
    - **Technology and Doctrine Gaps and Redundancies Analysis**
    - **Modeling and Simulation**
    - **Demonstration/Exercise Hardware Procurement**
    - **Standards and Specifications Implementation**
    - **Systems Integration**



# *Funding Requirements*

## *POM 06-11*

- \$4M Annual CLOE Operations

+

### **CLOE SIL (RDT&E)**

- Evaluate
  - New Technologies
  - New Concepts
  - New Standards
- Synchronize
  - Doctrine/Policy
  - Operational Arch.
- Integration
  - Commonality
  - Interoperability
  - Technical Test
- Develop System Arch.

### **CLOE Implement.**

- Procure
  - Hardware
- Software Development
  - Operational
  - Capable
  - Documentation
- Test
  - Technical Testing
  - OT - Exercise
  - ATEC
- Fielding
  - Installation
- Training
  - Training Base
  - NETT

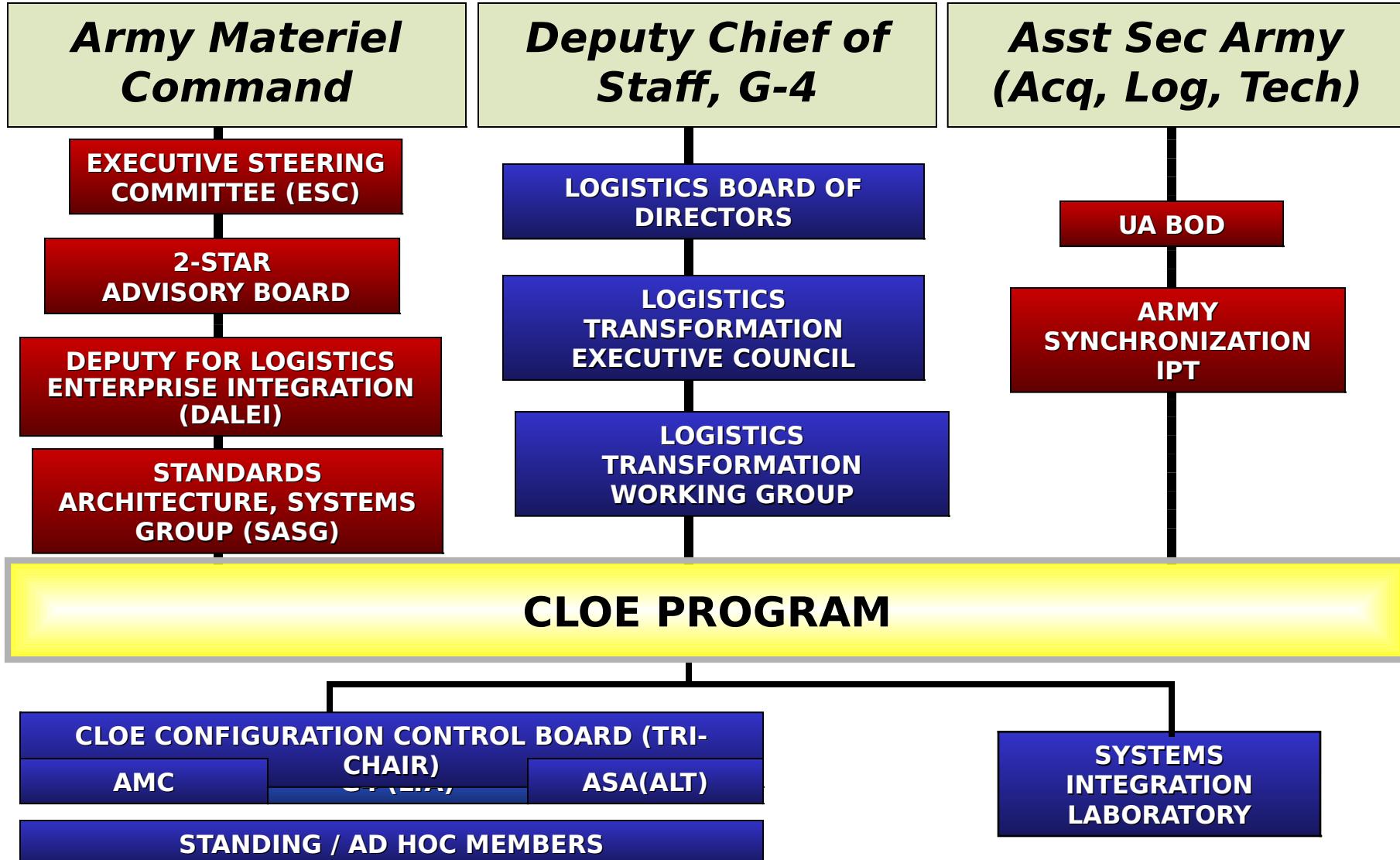
### **CLOE Sustainment**

- Life Cycle MGT
  - Sustain Hardware
  - Sustain Software
  - Sustain System
  - Architecture
- Configuration MGT
  - CMP
  - CCB
  - System Architecture

- Crosses Multiple PEGs
- Needs Separate MDEP



# CLOE Governance





# Recommendations

- **Approve and Fund CLOE Strategy in FY 04/05**
- **Approve CLOE As a Separate MDEP, POM 06-11**
  - Source From Multiple PEGs
  - Direct PA&E to Lead Financial Analysis
- **Approve Governance Recommendation**
- **Direct Us to Schedule Workshop to *Collectively* Develop/Approve an Execution Plan**
  - HQDA Elements
  - PEOs/PMs
  - MACOMs